

Notice of Allowability	Application No.	Applicant(s)	
	10/620,281	MINGZHONG ET AL.	
	Examiner	Art Unit	
	JOHN PAK	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Applicant's reply of 6/2/2005.
2. ☒ The allowed claim(s) is/are 1-14, 18 and 50-62 [renumbered as 1-28].
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).


* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
|---|---|


JOHN PAK
PRIMARY EXAMINER
GROUP 1600

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An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Xia on 8/5/2005.

Amendments to the Claims

Cancel the non-elected claims 41-49.

Claim 9, line 4: delete "sulphate" and insert --- sulfate --- .

Claim 10, line 11: delete "terephthalic acid," .

Claim 13, line 3: delete "sulphates" and insert --- sulfates --- .

Rewrite claim 14 as follows.

Claim 14. (Currently amended) The composition of claim 13 further comprising a hydantoin halogen scavenger.

Claim 50, last line: delete "of" and insert --- up to --- .

Claim 58, line 4: delete "sulphate" and insert --- sulfate --- .

Claim 59, line 11: delete "phthalic acid, isophthalic acid, terephthalic acid,"

Claim 61, line 3: delete "sulphates" and insert --- sulfates --- .

Rewrite claim 62 as follows.

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Claim 62. (Currently amended) The method of claim 61, wherein the surfactant composition further comprises a hydantoin halogen scavenger.

Amendment to the Specification

Page 12, line 6, delete "killed" and insert --- skilled --- .

All of the above changes are minor spelling or language clarifications. Duplicate recitation of terephthalic acid and other acids have been deleted. The term "sulphate" has been replaced with "sulfate" for consistency (the "sulfate" spelling is used elsewhere in the claims).

Claims 50-62 have been rejoined since said claims include all the limitations of the allowable composition claims. Consequently, the restriction requirement between the composition claims and the rejoined method claims are withdrawn. All claims that remain pending after the entry of the above Examiner's Amendment are deemed to be allowable.

Reasons for Allowance

The following is an Examiner's statement of Reasons for Allowance:

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The section 102 ground of rejection over DeSenna et al. is withdrawn.

DeSenna et al. teach away from using a powder (column 3, lines 23-27), so the reference is plainly not relevant to claims 4, 18 and 53. DeSenna et al. teach various proportions of ingredients to formulate an effervescent tablet, but their teachings, taken as a whole, fail to disclose or suggest applicant's specific proportions of 10 wt% NaBr + 20 wt% organic acid + 10 wt% halogen releasing compound + 50 wt% filler (all percentages claimed in "about" language). None of DeSenna's examples or claims that recite percentages can be interpreted to encompass such proportions. None of DeSenna's examples or claims even come close. In all the examples and claims by DeSenna et al., the weight percentage of the bromide source is *less than* the hypochlorite source. This is the *exact opposite* of the instant claims. Although alteration of weight percentages is taught by DeSenna et al. (column 5, lines 32-33), there is inadequate suggestion to arrive at the specific weight percentages of the instant claims when DeSenna's "effective pH and concentration of halogen" considerations (column 5, lines 34-40) and the target equilibrium obtained from the bromide source and the hydrochlorite source (column 4, lines 15-23) are taken into account. The disclosure by DeSenna et al. is therefore not applicable to applicant's claimed invention.

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The section 102 ground of rejection over Auchincloss (US 4,822,512) is withdrawn. Auchincloss makes a point of using halides at low concentrations (column 2, lines 36-37). At Auchincloss's maximum concentration of 5 wt% NaBr (column 2, lines 19-20 & 68), only instant claim 18 is potentially relevant to this discussion. With respect to instant claim 18, Auchincloss fails to disclose or suggest the combination of 5 wt% NaBr with the remaining components of applicant's claimed invention. For example, instant claim 18 requires about 5-15 wt% halogen releasing compound, but Auchincloss requires a much higher 25-60 wt% oxidizing agent, which can react to release hypobromite (column 2, lines 15-31; claims 1 and 7). Auchincloss is therefore not applicable to applicant's claimed invention.

The section 102 ground of rejection over Shim et al. (US 6,478,972) is withdrawn. Teachings of Shim et al. were applied with respect to then-pending claims 29, 39 and 40. Those broader claims have been canceled, and Shim et al. fail to suggest applicant's specific proportions of 10 wt% NaBr + 20 wt% organic acid + 10 wt% halogen releasing compound + 50 wt% filler (all percentages claimed in "about" language).

The section 102 ground of rejection over Hight et al. (US 5,527,547) is withdrawn. Hight et al. establish the criticality of ratio of chlorine and bromide

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salts (column 6, lines 20-36), and teach the ratio of 85-99 parts hypochlorite donor to 1-15 parts Na or K bromide donor (column 9, lines 47-51). This ratio is clearly higher than that of applicant's 1:1 ratio in instant claims 1-14 and (5-15) : (5-15) ratio in instant claim 18. The disclosure by Hight et al. is therefore not applicable to applicant's claimed invention.

In the previous Office action, teachings of Hight et al. and DeSenna et al. were applied in separate grounds of rejection under 35 USC 103(a), in view of Shim et al. The rejected claims have been canceled. Additionally, for the reasons fully set forth above, Hight et al. and DeSenna et al., either individually or in view of Shim et al., are also not applicable with respect to the instant claims under section 103(a).

In sum, while the prior art utilizes similar ingredients for biocidal utility, there is insufficient disclosure, suggestion or motivation for one of ordinary skill in the art to (i) combine about 10 wt% NaBr + about 20 wt% organic acid + about 10 wt% halogen releasing compound + about 50 wt% filler, or (ii) combine about 5-15 wt% NaBr + about 10-40 wt% organic acid + about 5-15 wt% halogen releasing compound + about 25-75 wt% filler in the form of a powder. The prior art of record amply establishes that the specifics of composition ingredients, proportions and form are sufficient to support patentability, under the facts of this

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application and present claims. As the prior art of record fails to disclose or suggest the claimed invention, the claimed invention, as a whole, is deemed to be allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


A facsimile center has been established in Technology Center 1600. The hours of operation are Monday through Friday, 8:45 AM to 4:45 PM. The telecopier number for accessing the facsimile machines is (571)273-8300.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Examiner John Pak whose telephone number is **(571)272-0620**. The Examiner can normally be reached on Monday through Friday from 8:00 AM to 4:30 PM. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's SPE, Mr. Gary Kunz, can be reached on **(571)272-0887**.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is **(571) 272-1600**.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have a question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JOHN PAK
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